

Application Brief

Automotive Manufacturing Labeling



Industry

Automotive Assembly, Heavy Truck, Light Commercial, Marine Engine, Power Generation and Tier Suppliers, Body-in-White, Chassis, Electronics and Electrical; Exterior Components; Interior Components, Powertrain Operations, Tire Manufacturing

Products

INdelible label, INdelible HP label, INdelible void label, INTact tire label, Duratran S label, Duratherm S label, Duratherm III label, Duratran II label, Duratherm II tag, Duratran II tag, Duratran II nylon tag, Duratran Synthetic tag, Duratran Pro tag, TMX1000, 2000, 3000 series ribbons, PM23, PM43, PX4/6i

Region

North America

Typical Applications

Automobile assembly, Body-in-white, Automotive exterior and interior, Chassis, Automotive electronics and electrical, Powertrain suppliers, Automotive component manufacturing, Tire labeling

Customer Benefits

- Durable, high contrast print for consistent ANSI Grade A scanning performance
- Reduced total cost of ownership with free printhead replacement program when Intermec media and fixed printers are used together
- Improved item traceability
- Increased productivity

Industry Need

Public Safety and 24/7 production schedules require a strong focus on efficiency with just-in-time sourcing, demanding accurate component level traceability to Assembly Plants and globally integrated tier suppliers. Highly efficient assembly processes can be quickly idled with the absence of a few critical components, leading to expensive production delays. Adding to the need, recalls of defective components must be correctly matched to a vehicle's VIN to expedite resolution with the National Highway Safety Transportation System (<http://www.nhtsa.gov>), minimize cost, and reduce risk and negative publicity for the brand. Standards of code configurations can be found at the AIAG (<http://www.aiag.org>).

Automotive applications can often be extremely challenging for conventional labels. Whether exposed to high heat, abrasion, engine and cleaning fluids, adhered to rough surfaces, or simply requiring long term durability, automotive labels can have highly stringent performance specifications. Sourcing products to meet these needs requires a label partner with the quality and experience to consistently deliver co-engineered performance that scans ANSI grade A throughout the life of the vehicle.

Intermec Solutions

Intermec has a broad portfolio of materials and expertise to satisfy the range of applications from simple stock tags and work-in-process labels to high durability component labels. Common applications include:

- **Durable component labels/track and trace (INdelible and INdelible HP label):** These highly rugged labels maintain bar code scannability after abrasion, chemical contact, and high temperature exposure. For rough surfaces (ex. sand-cast housings for powertrain applications), INdelible HP offers premium adhesive bond strength.
- **WIP tracking and inventory control (Duratran II label, Duratherm III label):** Premium print quality on these paper labels enables excellent scan rates for multi-step assembly processes such as electrical components.
- **Asset tracking (INdelible, INdelible HP label):** With tracked items often encountering harsh environments, these rugged labels ensure that proper identification is only a scan away.
- **Reusable tote labels (Duratran S removable label, Duratherm S removable label):** These high strength labels provide reliable traceability to final assembly plants, but remove cleanly when the container is returned and ready to be refilled.
- **Paint mask label (INdelible paint mask label):** This robust product allows simple tracking of items from early assembly through painting, curing, and finishing as encountered in chassis, body-in-white or exterior component manufacturing processes.
- **Flame retardant sew-in tags (Duratran II nylon tag):** Satisfying FMVSS302 requirements, this high strength, highly abrasion resistant tag stock offers superior print quality for reliable scanning of high resolution bar code symbols as required for interior components such as seat belts.

- **Large component tagging (Duratran Synthetic tag, Duratran Pro tag):** For many reasons, some large assemblies are not compatible with conventional adhesive labeling. Tagging with these tear-resistant materials ensures traceability through manufacturing, transportation, and final assembly.
- **Kanban processes (Duratran or Duratherm paper tag):** Excellent print quality and direct thermal simplicity make Duratherm tags a great fit for this common application. When incidental exposure to oil or grease is anticipated, Duratran II offers increased image life.
- **Durable tamper evident labels (INdelible Void label):** Offering excellent print quality, top notch abrasion resistance, and a clear indication of tampering or removal, this stock provides a solution for sensitive components (such as electronics) or regulatory compliance (such as tire inflation information labels commonly adhered to doors).
- **Tire labeling (INtact Tire label):** With reliable adhesion to rough tire tread surfaces and print that survives rough handling, this label ensures a quick scan can link tire serial numbers to the assembled vehicle.
- **Lockout tags (Duratran Synthetic tag, Duratran Pro tag):** When equipment must be shut down for maintenance, these rugged tags satisfy a critical element of OSHA compliance.

Printing solutions are similarly optimized for the demanding automotive environment. The PM43 printer offers best-in-class connectivity ranging from the CCXv4 and WiFi certified wireless option to a standard serial port, ensuring that applications from cutting-edge integration to legacy hardware replacement are thoroughly supported. With the ability to remotely monitor, change settings, or reconfigure the printer, IT support is greatly simplified. With a full color touch screen or a one-button Icon version, this unit can either empower trusted users or positively eliminate employee tampering.

PX series printers offer maximum durability and throughput for 24/7, high volume applications. With a 6.7" maximum media width, the PX6i adds the capability to run industry-standard formats up to 6.5" wide, increasing throughput by 30% over 4" printers.

With Intermec smart printing capabilities, the PM and PX series printers can communicate to and from the host system. Interfacing with PLCs, scanners, or other devices, these printers can eliminate the need to install and support PCs or terminals at the workstation, reducing deployment and support costs and maximizing efficiency.

Media Solutions for Automotive Manufacturing Labeling

Application	Material	Durability	Temp. Range	Leading Stock Label Configurations Industrial Printers	Leading Stock Ribbons Industrial Printers
Asset Tracking; Durable Component Labels/ Track and Trace	INdelible Label	Best. Superior scratch, smudge, and chemical resistance.	50F minimum application, -40 to 302F service; evaluated up to 480F	3x1 roll (E23068); 3x2 roll (E23069); 4x1 roll (E25732); 4x2 roll (E23222); 4x6 roll (E25733)	TMX3000 series: 3.27x12000" (13033312, CSI); 4.1x18,000" (13634118, CSI)
	INdelible HP Label	Best. Superior scratch, smudge, and chemical resistance. Highly aggressive adhesive for rough or challenging surfaces.	50F minimum application, -40 to 302F service; evaluated up to 480F	3x1 roll (E27277)	TMX3000 series: 3.27x12000" (13033312, CSI); 4.1x18,000" (13634118, CSI)
WIP Tracking and Inventory Control	Duratran II Label	Good. Moderate moisture and abrasion resistance.	25F minimum application, -65 to 200F service	2x1 roll (E10997); 3x1 roll (E06172); 3x2 roll (E20676); 4x1 roll (E06724); 4x2 roll (E07516); 4x4 roll (E11620); 4x6 roll (E06175)	TMX1000 series: 2.05x18,000" (11232018, CSI); 3x18,000" (11233018, CSI); 4.17x18,000" (11034118, CSI)
	Duratherm III Label	Good. Topcoated DT with moderate moisture and abrasion resistance.	32F minimum application, -4 to 120F service	2x1" roll (E22751); 2.5X1" roll (E06142); 2x4" roll (E22749); 3.5x1 roll (E27027); 4x6" roll (E06144)	N/A (direct thermal)
Reusable Tote Labels	Duratran S Tight Removable Label	Excellent facesheet strength, controlled bond strength with clean removability. Heat and chemical resistant.	40F minimum application, -40 to 200F service	4x6.5" roll (E26362)	TMX2000 series: 4.09x18,024" (1234118, CSI)
	Duratherm S Tight Removable label	Excellent facesheet strength, controlled bond strength with clean removability. Direct thermal printable for ease of use.	40F minimum application, -40 to 120F service	Custom	N/A (direct thermal)

Application	Material	Durability	Temp. Range	Leading Stock Label Configurations Industrial Printers	Leading Stock Ribbons Industrial Printers
Paint Mask Labeling	INdelible Paint Mask	Excellent. 7+ years outdoor. Superior abrasion and chemical resistance.	50F minimum application, -40 to 302F service (successfully tested up to 400F)	1x3 Paint mask configuration (E24028)	TMX 3000 series: 3.27x12,000" (13033312, CSI)
Flame retardant sew-in tag	Duratron Nylon Tag	Excellent print quality and scratch/smudge durability. Complies with FMVSS302.	-40 to 250F service temperature	Custom	TMX3000 series: 2.09x18,000" (13632018, CSI); 3x18,000" (13633018, CSI); 4.09x18,000" (13634118, CSI)
Large component tracking	Duratron II Synthetic tags	Good. Strong tear resistance and moisture/chemical durability.	-60 to 200F service	4x6" roll (E23895)	TMX2000 series: 2.05x18,024" (11232018, CSI) 3.00x18,024" (11233018, CSI) 4.09x18,024" (11234118, CSI)
	Duratron Pro Tag	Better. Premium tear resistance and excellent moisture/chemical durability.	-70 to 180F service	4x6" roll (E12982)	TMX2000 series: 2.05x18,024" (11232018, CSI) 3.00x18,024" (11233018, CSI) 4.09x18,024" (11234118, CSI)
Kanban processes	Duratherm II tag	Minimal durability for benign environments.	-40 to 120F service	4x6" roll (E04633)	N/A (direct thermal)
	Duratron II tag	Good. Moderate moisture and abrasion resistance.	-40 to 300F service	4x6" roll (E09708)	TMX1000 series: 4.17x18,000" (11034118, CSI)
Durable Tamper Evident Labeling	INdelible void label	Best. 7+ years outdoor. Superior scratch, smudge, and chemical resistance.	50F minimum application, -40 to 302F service; evaluate up to 480F	Custom	TMX3000 series: 3.27x12000" (13033312, CSI); 4.1x18,000" (13634118, CSI)
Tire Labeling	INtact tire label	Better. Excellent smudge and scratch resistance, aggressive adhesive for tread surface.	20F minimum application, -65 to 150F	Custom	TMX3000 series: 3.27x12000" (13033312, CSI)
Lockout Tags	Duratron II Synthetic tags	Good. Strong tear resistance and moisture/chemical durability.	-60 to 200F service	Custom	TMX2000 series: 2.05x18,024" (11232018, CSI) 3.00x18,024" (11233018, CSI) 4.09x18,024" (11234118, CSI)
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Printer Recommendation

PM43/23 Mid Range Printer [Profile](#)

Ready – Fastest to deploy. Seamlessly fits any environment.

- Large color multi-lingual tamper proof touch-screen or icon user interface
- No touch configuration capabilities
- Only CCX & WiFi certified fixed printers with standard IPv6 implementation

Reliable – Maximize uptime. Built from 40 years of printing innovations.

3rd generation platform.

- Precision Print for consistent bar code printing with pin point accuracy
- Multilingual Web page loaded on every printer ensure easy device monitoring
- Strong metal structure with metal door that can be locked for media protection

Perform – Increase productivity and process efficiencies.

- Fastest throughput in its class
- Powerful programmable capability with ability to directly connect peripherals
- Most connectivity options in the market

PX4i High Performance Printer [Profile](#)

- **Smart** – Powerful smart-printing capabilities enable error-proof labeling and can simplify processes; All-in-one printer language abilities for drop-in simplicity
- **Strong** – Superior throughput, designed to excel in demanding environments
- **Secure** – Industry leading, advanced and secure network connectivity options



The Intermec Advantage

In high efficiency automotive production environments, it is critical that the printers and media work together flawlessly. Intermec printers and media are optimized to deliver superior performance when used together offering ANSI grade A images. Our rigorous testing and co-engineering ensures consistently precise print quality, proven label and tag performance in demanding real-world environments, and maximum print head service life for reduced downtime.

Intermec printers and media are complemented by the industry's only complete line of integrated solutions and services, including rugged mobile computers, RFID systems, and advanced scanning technology. Intermec products and services are used by customers worldwide to improve the productivity, quality and responsiveness of their business operations.

Printhead Replacement Program

Intermec will provide no cost replacement printheads, as failures occur due to normal wear and tear, to those customers who use Intermec Media Products exclusively with their Intermec direct thermal and thermal transfer fixed printers. For full details, click [here](#).

For more information

Contact Intermec for more information on high performance automotive labeling products for your enterprise.



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